

LONE PINE LANDFILL

NEW JERSEY

EPA ID# NJD980505424



EPA REGION 2 CONGRESSIONAL DIST. 12

Monmouth County
Freehold

Site Description

The Lone Pine Landfill Superfund site consists of a 57-acre landfill on a 144-acre property, located adjacent to the Manasquan River in Freehold Township, Monmouth County, New Jersey. The landfill is bounded by the Manasquan River to the north, Burke Road to the east, a forested wetland to the west, and a leaf composting facility to the south. This location is rural to suburban and the closest residence is approximately 600 feet south of the landfill. A local sportsman's club and the Turkey Swamp Fish and Wildlife Management Area are approximately 1000 feet from the landfill. Additionally, a 700 acre municipal potable water supply reservoir is 16 miles downstream of the landfill, off of the Manasquan River.

The landfill began operation in 1959 by the now defunct Lone Pine Corporation. Until it was closed by the New Jersey Department of Environmental Protection (NJDEP) in 1979, the landfill accepted over 17,000 drums of chemical waste, municipal refuse, large volumes of septage, and millions of gallons of bulk liquid chemical wastes. In 1981, the landfill was ranked on EPA's Interim National Priorities List. In 1981 and 1982, the United States Environmental Protection Agency (EPA) and NJDEP conducted initial studies to ascertain the potential threat to public health and the environment from the landfill. Excavation and sampling demonstrated the presence of leaking drums containing a variety of organic substances, heavy metals, and pesticides. Severe ground water contamination was also documented. In September 1983, the site was ranked on EPA's National Priorities List.

Site Responsibility: This site is being addressed through Federal and private party actions.

NPL LISTING HISTORY

Proposed Date: 10/01/81

Final Date: 09/01/83

Threats and Contaminants



Ground water and surface water was contaminated with a variety of organic substances, heavy metals, and pesticides. The site is adjacent to the headwaters of the Manasquan River and a wildlife management area, and is in close proximity to residences with drinking water wells.

Cleanup Approach

The site has been addressed by two long-term remedial phases focusing on landfill cleanup and ground water cleanup.

Response Action Status



Landfill Cleanup: Based upon a remedial investigation and feasibility study (RI/FS) and public comment, EPA signed a Record of Decision (ROD) in September 1984 to contain the landfill and clean up contaminated ground water and landfill leachate directly beneath the landfill.

The ROD required the construction of: an impermeable cap and methane gas venting system; a slurry wall around the perimeter of the landfill; a ground water and leachate collection and treatment system; an on-site water treatment plant for treatment of the extracted ground water and landfill leachate; and a monitoring system to ensure that the remedy is effective. The design of the landfill remedy was prepared by the U.S. Army Corps of Engineers (COE) under EPA supervision. Design work was completed in June 1989. Construction of the remedy was performed by a group of potentially responsible parties (PRPs) under EPA and COE oversight. Construction began in July 1991 and was completed in December 1993. The major construction components included: installation of a 57-acre multi-layer cap; installation of a 5,965-foot slurry cut-off wall; installation of chemical leachate and methane gas collection systems; construction of a powder activated carbon treatment wastewater treatment plant with piping to the Ocean County Utilities Authority sewage treatment plant; installation of a methane gas flare; construction of a perimeter drainage system; and installation of a hydraulic monitoring system.



Ground Water Cleanup: Another requirement of the September 1984 ROD was the performance of an RI/FS to determine the nature and extent of off-site ground water contamination and to assess the need for further remediation. One of the PRPs agreed to fund and perform this RI/FS under EPA oversight. The RI/FS began in late 1985 and was completed in 1990. Based on the RI/FS and public comment, EPA issued a ROD for ground water cleanup in September 1990 to address the contaminated ground water beyond the perimeter of the landfill. The ROD required: a 2,800-foot long interceptor drain to prevent contaminated ground water from entering the Manasquan River; extraction and injection wells; on-site treatment of the extracted ground water; institutional controls to restrict ground water usage in the area affected by the site; and a monitoring program. A group of PRPs agreed to fund, design, and construct the ground water remedy, under EPA oversight. Design work began in June 1992 and EPA approved the design in July 1993. The PRPs began construction in March 1994 and completed it in June 1994. The major construction components included:

installation of a 2,800-foot interceptor drain; installation of a well collection system; installation of piping to the on-site wastewater treatment plant and connections to the Ocean County Utilities Authority sewage treatment plant; and installation of ground water and hydraulic monitoring systems.

Site Facts: Under a Consent Decree entered in federal court in March 1990, a group of PRPs have constructed the landfill remedy and are performing operation and maintenance of this remedy. Under a second Consent Decree entered in federal court in January 1992, a group of PRPs performed the design and construction of the ground water remedy and are currently performing operation and maintenance of this remedy.

Cleanup Progress



Construction Complete _____

Construction of the two remedies at the Lone Pine Landfill has been completed. The landfill is now in the operation and maintenance phase. The landfill is encapsulated, leachate generation is being prevented by the landfill cap, existing leachate is being extracted and treated, contaminated ground water no longer migrates into the Manasquan River, and the contaminated ground water is being treated. To date, the on-site wastewater treatment plant has treated approximately 60 million gallons of leachate and contaminated groundwater. In September 1999, EPA completed its Five-Year Review of the site and is currently conducting the second Five-Year Review, which is due in September 2004. Based on the first Five-Year Review, EPA recommended that the long-term operation and maintenance and the site monitoring at the Lone Pine Landfill should continue until future data indicate otherwise. EPA also determined that the remedy selected at the site continues to be protective of human health and the environment.

